SigmaDeWe – Risk Management

Certificates - Practical Tips

Credit rating of issuers

In order to evaluate the credit rating of an issuer two possibilities exist: examine the ratings issued by the rating agencies or analyze the risk premiums in terms of credit default swaps. An overview of both alternatives can be found, for instance, on the BNP Paribas site (http://www.derivate.bnpparibas.com/service/bonitaet-und-cds) or on the German site Deutsche Derivate Verband

(http://www.derivateverband.de/DEU/Transparenz/CreditSpreads).

Choosing certificates

Free financial portals such as the German finanzen.net offer useful tables with which to select appropriate certificates (http://zertifikat.finanzen.net/zertifikate/suche).

Waiving of dividend payments

If you invest in a certificate whose underlying asset distributes a dividend, such as the EURO STOXX 50 price index, you waive this dividend. In compensation, the fair price of the certificate should be reduced in comparison to an otherwise equal investment in an underlying asset without dividend payments. If you choose a performance index as the underlying asset, such as the DAX index, or a stock without dividend payments, you avoid the risk that the price reduction is not entirely passed on to the buyer of the certificate. In the case of bonus certificates, dividend stocks imply another disadvantage: If the time of dividend payment lies before the expiration date of the certificate, the risk to touch or break through the absorbing barrier is increased, because the price of the underlying asset is reduced by the amount of the dividend payment. In order to avoid this drawback, it is useful to choose the certificate's expiration date before the ex-dividend day (usually one to three days after the annual stockholders meeting).

Sale of discount certificates before their expiration date

It is possible to sell a discount certificate any time before its expiration date. This makes sense if the market has risen significantly and a large part of the maximum possible return is achieved after a short time period, and if transaction costs, as well as spreads, are negligible (if the certificate is allowed to expire these costs are usually not incurred!)

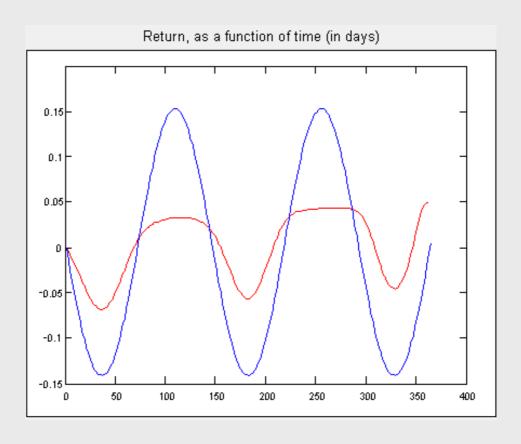
The following graph demonstrates the time development of a certificate's return in an assumed periodically fluctuating stock market (blue curve) with the following parameters: duration of 365 days, 2% risk-free return rate, 0% expected yield on stock, constant stock market volatility of 15%, and cap/underlying asset=0.94. In this example one has achieved a return of 3.3% (resp. 4.4%) of the maximum possible return of 5.0% already after 30% (resp. 70%) of the total duration period.

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Sale of discount certificates before their expiration date (ff)

Blue curve: return of the underlying asset as a function of time (in days) **Red curve:** return of the discount certificate as a function of time (in days)



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Iterations of certificates

If you want to use certificates as a long-term investment option, you have to consider their duration and the fact that they must be rolled over into new certificates when they expire: you must think about the iterations of certificates. The analysis of **discount certificates** yields the following results (see the chapter **Iterations of discount certificates** in the article http://www.sigmadewe.com/fileadmin/user_upload/pdf-Dateien/SigmaDeWe-Risikomanagement_Discountzertifikate_engl.pdf):

- A long duration (> 1 year) for each certificate is better than a short duration (< 0.5 years), if there are transaction costs.
- The shorter the duration of a single discount certificate, the more important it is
 to have low transaction costs and a fair price for the certificate, since otherwise
 the reductions of return can be significant for large numbers of iterations.
- With the proper knowledge of iteration it is better to do it yourself than to buy rolling discount certificates. In this case the issuer does the iteration for the investor after the certificate has expired. However, annual management fees of up to 1.8% can be charged for this service. Typically, issuers iterate certificates with very short durations of 1-3 months whose caps are close to the price of the underlying asset. The result is a remarkably poor performance for the investor. If the investor himself rolls the certificate over and selects certificates with long durations (> 1 year) and caps according to his own risk-return profile, the results are much better. This way the investor has the additional benefit of being able to sell a certificate prematurely when the market has increased significantly and much of the yield has been already "brought in" (see the above section Sale of discount certificates before their expiration date).